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**REMARKS**

**I. INTRODUCTION**

Claims 1, 5, 7, 9, 13, 15, 20, 21, and 25-27 have been amended. Claims 2, 6, 10, 14, 22 have been cancelled. Claims 28-36 have been added. No new matter has been added. Thus, claims 1, 3-5, 7-9, 11-13, 15-21, and 23-39 remain pending in the present application. Applicants thankfully acknowledge the Examiner's indication that claim 20 would be allowable if appropriate corrective action is taken to the spelling of "lubricious". However, in view of the above amendments and following remarks, it is respectfully submitted that all of the presently pending claims are allowable.

**II. THE 35 U.S.C. § 102(b) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1, 3, 5, 6, and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by International Publication No. WO 01/64102 to Nachaliel (hereinafter "Nachaliel"). (See 04/24/06 Office Action, p. 2, ¶ 2).

Independent claim 1 is currently amended to incorporate the allowable subject matter disclosed in claim 20. Amended claim 1 recites, an "electrode array, comprising an electrode support; a group of electrodes mounted on the electrode support for measuring electrical activity in a subject's biological tissue; and an inter-electrode conductive medium having a given resistivity for controlling, during electrical activity measurement, resistivity between the electrodes of the group to improve said electrical activity measurement, the inter-electrode conductive medium including a coating formed of a first layer of conductive material applied to at least one electrode of the group and to the electrode support between the electrodes and a second layer of slippery conductive material applied to the first layer of conductive

material to provide a lubricious interface to the subject's biological tissue, wherein, when electrical contact between at least one electrode of the group and the subject's biological tissue is poor, the inter-electrode conductive medium forms a means for producing on said at least one electrode an estimate of the electrical activity in the subject's biological tissue, said estimate being a mean value of electrical potentials produced on neighbouring electrodes of the group by the electrical activity in the subject's biological tissue." (Emphasis added).

Nachaliel generally relates to a multi-element probe comprising a probe body, wherein the probe body comprises a plurality of probe element and an interface, wherein the interface comprises a conductive material covering surfaces of the probe elements. (See Nachaliel, Abstract). The conductive material is described as a layer of material having a conductivity similar to that of human tissue. (See *Id.*, p. 7, lines 8-9). Furthermore, the conductive material may include an adjusting additive, such as salt, to adjust the conductivity of the interface. (See *Id.*, p. 8, lines 3-4). In contrast to Nachaliel, the present invention discloses the use of a conductive medium for coating electrodes, wherein the medium has first and second conductive layers having a given resistivity. (See Specification, ¶ [0036]). As shown above, this feature is specifically recited in claim 1. Thus, it is respectfully submitted that Nachaliel fails to teach or suggest a system or apparatus including a "inter-electrode conductive medium including a coating formed of *a first layer of conductive material... and a second layer of slippery conductive material* applied to the first layer of conductive material," as recited in amended claim 1. Applicants respectfully submit that for at least the reasons stated above, claim 1 of the present application is not anticipated by Nachaliel, and request that the rejection of this claim be withdrawn. As claims 3-5, 7 and 8 depend from, and therefore include all the limitations of claim 1, it is hereby submitted that these claims are also allowable.

Claims 1, 3-5, 7-9, 11-13, 15, 16, 21 and 23-27 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,991,650 to Swanson (hereinafter "Swanson"). (See 04/24/06 Office Action, p. 2, ¶ 3). As discussed above, independent claim 1 is currently amended to incorporate the allowable subject matter disclosed in claim 20.

Swanson generally relates to a catheter including a distal end assembly having an external surface coating. (See Swanson, Abstract). The surface coating may be a regenerating cellulose coating that acts as a mechanical barrier while providing electrical contact to the human body. (See *Id.*, col. 3, lines 55-60). Furthermore, the surface coating may be a hydrogel or conductive plastic material. (See *Id.*, col. 4, line 62 – col. 5, line 6). In contrast to Swanson, the present invention discloses the use of a conductive medium for coating electrodes, wherein the medium has first and second conductive layers having a given resistivity. (See Specification, ¶ [0036]). Thus, it is respectfully submitted that, similar to Nachaliel, Swanson fails to teach or suggest a system or apparatus including a "inter-electrode conductive medium including a coating formed of *a first layer of conductive material... and a second layer of slippery conductive material*," as recited in amended claim 1. Applicants respectfully submit that for at least the reasons stated above, claim 1 of the present application is not anticipated by Swanson, and request that the rejection of this claim be withdrawn. As claims 3-5, 7, and 8 depend from, and therefore include all the limitations of claim 1, it is hereby submitted that these claims are also allowable.

Independent claim 9 is currently amended to incorporate the allowable subject matter disclosed in claim 20. Specifically, claim 9 recites, "...the inter-electrode conductive medium including a coating formed of *a first layer of conductive material* applied to at least one electrode of the series and to the electrode support between the electrodes *and a second layer of*

*slippery conductive material* applied to the first layer of conductive material...” (Emphasis added). Therefore, Applicants respectfully submit that claim 9 is allowable for at least the reasons discussed above with regard to claim 1. As claims 11-13, and 15-19 depend from, and therefore include all the limitations of claim 9, it is hereby submitted that these claims are also allowable.

Independent claim 21 is currently amended to incorporate the allowable subject matter disclosed in claim 20. Specifically, claim 21 recites, “...the inter-electrode conductive medium including a coating formed of *a first layer of conductive material* applied to the electrodes of the group *and a second layer of slippery conductive material* applied to the first layer of conductive material to provide a lubricious interface to the subject’s biological tissue...” (Emphasis added). Therefore, Applicants respectfully submit that claim 21 is allowable for at least the reasons discussed above with regard to claim 1. As claims 23-27 depend from, and therefore include all the limitations of claim 21, it is hereby submitted that these claims are also allowable.

### **III. THE 35 U.S.C. § 102(e) REJECTIONS SHOULD BE WITHDRAWN**

Claims 1, 3-5, 7-9, 11-13, 15, 16, 21 and 23-27 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,584,347 to Sinderby (hereinafter “Sinderby”). (See 04/24/06 Office Action, pp. 2-3, ¶ 4). As discussed above, independent claims 1, 9, and 21 are currently amended to incorporate the allowable subject matter disclosed in claim 20.

Sinderby generally relates to a myographic probe for detecting an electrical signal produced by a muscle and for reducing the influence of electrode disturbances. (See Sinderby, Abstract). The myographic probe comprises an electrolyte-permeable matrix having a lower

conductivity than the electrodes when the electrolyte-permeable matrix is dry, wherein the function of the probe is to eliminate artifacts caused by motion of the electrodes, changes in the pressure applied to the electrodes, and intermittent contact with surrounding tissue (See Id., col. 5, lines 1-4). More specifically, the matrix of is so configured to create an interface that hosts ions and electrodes and prevents direct contact between the metal surface of the electrode and the surrounding body tissue in order to eliminate problems related to the motion of the electrodes. (See Id., col. 5, lines 11-13). In contrast to Sinderby, the present invention discloses the use of a conductive medium for coating electrodes, wherein the medium has first and second conductive layers having a given resistivity. (See Specification, ¶ [0036]). Thus, it is respectfully submitted that, similar to Nachaliel and Swanson, Sinderby fails to teach or suggest a system or apparatus including a “inter-electrode conductive medium including a coating formed of *a first layer of conductive material... and a second layer of slippery conductive material,*” as recited in amended claim 1. Applicants respectfully submit that for at least the reasons stated above, claim 1 of the present application is not anticipated by Sinderby, and request that the rejection of this claim be withdrawn. As claims 3-5, 7, and 8 depend from, and therefore include all the limitations of claim 1, it is hereby submitted that these claims are also allowable.

As discussed above, independent claims 9 and 21 are currently amended to incorporate the allowable subject matter disclosed in claim 20. Therefore, Applicants respectfully submit that claim 9 is allowable for at least the reasons discussed above with regard to claim 1. As claims 11-13, and 15-19 depend from, and therefore include all the limitations of claim 9, it is hereby submitted that these claims are also allowable. Furthermore, Applicants respectfully submit that claim 21 is allowable for at least the reasons discussed above with regard

to claim 1. As claims 23-27 depend from, and therefore include all the limitations of claim 21, it is hereby submitted that these claims are also allowable.

**IV. THE 35 U.S.C. § 103(a) REJECTIONS SHOULD BE WITHDRAWN**

Claims 17-19 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sinderby in view of U.S. Patent No. 6,148,222 to Ramsey, III (hereinafter "Ramsey"). (See 04/24/06 Office Action, p. 3, ¶ 6).

As discussed above, Sinderby does not teach or suggest all the limitations of independent claim 9. Ramsey does not cure the above-described deficiencies of Sinderby. Accordingly, because claims 17-19 depends from and, therefore, includes all of the limitations of corresponding independent claim 9, respectfully, it is submitted that claims 17-19 are also allowable over the cited references.

**CONCLUSION**

In light of the foregoing, Applicants respectfully submit that all of the presently pending claims are in condition for allowance. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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